

The Educational, Social, and Economic Value of *Informed and Considered Career Decisions*

**America's Career Resource Network Association¹
Research-based Policy Guidance**

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Overview

As policymakers deliberate and formulate policies that affect career information and services, America's Career Resource Network Association (ACRNA) urges consideration of the extensive body of evidence of the educational, social, and economic value of career information and services that foster *informed and considered career decisions*.

Educational Outcomes (Page numbers in parentheses refer to supporting sections.)

- Improved educational achievement (9)
- Improved preparation and participation in postsecondary education (9)
- Better articulation among levels of education and between education and work (11)
- Shorter time to graduation (11)
- Higher graduation and retention rates (11)

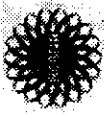
Social Benefits

- Benefits to family, peers, and community (12)
- Higher levels of worker satisfaction and career retention (13)
- Shorter path to primary labor market for young workers (14)
- Lower incidence of work-related stress and depression (14)
- Reduced likelihood of work-related violence (15)

Economic Consequences

- Higher incomes and increased tax revenues (16)
- Lower rates and shorter periods of unemployment (17)
- Lower costs of worker turnover (18)
- Lower health care costs (19)
- Lower incarceration and criminal justice costs (19)
- Increased worker productivity (19)

¹ America's Career Resource Network is the Department of Education's implementation of Section 118 Carl D. Perkins Vocational and Technical Education Act of 1998 Reauthorization (P.L. 105-332). ACRNA is a nonprofit organization dedicated to promoting, supporting, and improving career information and services.



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Background: *Informed and Considered Career Decisions*

Informed and considered career decisions are the product of a career development process that includes

- creating awareness of options,
- exploring possible career pathways,
- reviewing available information,
- clarifying interests, values, and skills through assessment,
- reflecting upon experiences,
- relating education and training options to occupational goals,
- experimenting through work sampling, volunteering, or employment,
- consulting with knowledgeable people in the field of interest,
- formulating plans for education, training, career entry, and retraining,
- making decisions and refining plans,
- implementing and adapting plans, and
- applying the career development process throughout the lifespan.

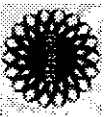
Informed and considered career decisions result in improved matches between people and their work. Such matching manifests itself in improved utilization of education and training resources, higher levels of worker satisfaction, preferred patterns of employment stability and mobility, increased income and benefits, and many attendant benefits to families and communities.

Career guidance professionals² may facilitate the career development process, or individuals may engage in the process on their own. Not all people will engage in all steps, and the sequence may vary; but however obtained, *informed and considered career decisions* represent a match of person and work in which the individual's skills, interests, values, beliefs, and purposes fit, align with, inform, and contribute to work, and work contributes to the individual's well-being and life goals.

For students, career information is an essential part of a comprehensive guidance process that extends throughout school years. Comprehensive guidance programs are effective in promoting *informed and considered career decisions* (Lapan, Gysbers, & Sun 1997; Whiston and Sexton, 1998). Comprehensive guidance represents a renewed emphasis on career development in schools (Dykeman, Ingram, Wood, Charles, Chen, & Herr, 2001).

Comprehensive guidance program content is designed to assist students and their parents in making *informed* educational choices, which lead to more educational and career options (Association for Career and Technical Education, 2003).

² Career guidance professionals may be vocational psychologists, counseling psychologists, school counselors, teachers, librarians, or professionals employed in a variety of public and private organizations who assist individuals with various aspects of career development.



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Schools may offer courses in career planning, and some schools require students to complete career plans. Despite consistent reports of the effectiveness of career development classes, a recent study of high school guidance offerings in the U.S. reported that career classes were offered in fewer high schools in 2002 than in 1984 (Parsad, Alexander, and Farris, 2002).

The career planning process was once thought to be completed during youth or young adulthood. With a changing nature of employment and higher expectations of individuals for quality in their relationship with work, a need has emerged for career development processes to take place throughout one's life. Indeed, experts such as Savickas (1999) and Jarvis (2003) assert that career self management is fundamental to success in the contemporary economy, which is characterized by rapid changes in the workplace, globalization, contingent work, international competition, and jobs that increasingly blur roles, functions, and responsibilities in accord with project needs. Career self management is the internalization of career development processes that enable an individual to navigate and prosper in a work world in which one's relationship to employment is in a state of flux, in which changing jobs and employers is the norm. In this challenging work world (liberating for some and terrifying for others), one's ability to work is mediated by the degree to which one can self market, self manage, align skills with work requirements, and satisfy clients and customers. In short, career self management rests squarely on the individual's ability to make *informed and considered career decisions*.

For many workers, changing occupational structures are thrusting them into situations that require career decision making. The Bureau of Labor Statistics estimates that there are 10.2 million contract workers in the U.S. (*Washington Post*, 2000), and millions more are caught in the decline of manufacturing and the shift to a knowledge economy. Even among employed Americans, there is little doubt that they would better inform themselves about career options if they were starting over (Hoyt and Lester, 1995). Fully 70 percent indicated they would seek more and better information before entering a career. And there is little doubt that the employment structures of the past in which one signed on with an employer for a lengthy stint provide fewer and fewer Americans with that type of employment relationship (U.S. Census Bureau, 1998, cited in Russiello, 2000). The most recent round of manufacturing job losses, which may represent *structural changes in the U.S. economy*, has left millions of Americans with uncertain futures as they search for pathways to re-employment, new careers, or survival without a traditional job. Whether employed or out of work, it is fair to say that all Americans will confront the question, "What work is right for me?" multiple times, if not continuously, throughout their work lives.

Dixon and Van Horn (2003) reported that one in five American workers had been laid off from their employment in the past three years. Coupled with a "job-loss recovery," economic security is a heightened concern for many Americans. Herr (2003) cites a recent Gallup Poll that reports 17 percent of Americans change jobs each year and that 10 percent



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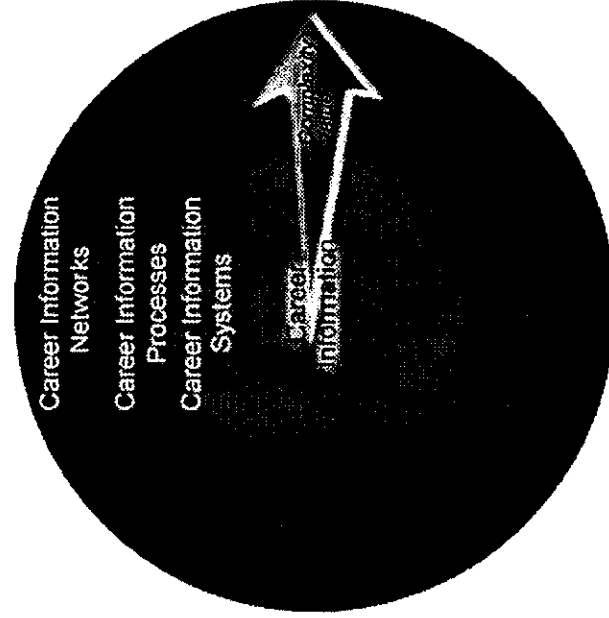
of the workforce need career planning help each year. This translates as more than 20 million job changers and 14 million people needing career planning assistance.

Whether the motivation is internal desire to improve one's situation or caused by a change in the work environment (layoff, plant closing, restructuring, downsizing, etc.) people are changing employment with increasing frequency (U.S. Census Bureau, 1998, cited in Russiello, 2000).

The currency of the contemporary labor market is skills. Those who have the capacity to articulate and align their skills with employment possibilities can participate in this market. Such capacity is essential to making *informed and considered career decisions*.

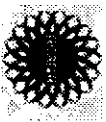
Given the urgent need for tools, resources, and processes that lead to *informed and considered career decisions*, investment in career information and the processes that lead to *informed and considered career decisions* should be among the first investments in national economic security and social well-being. Not only is the return on investment great, the cost to taxpayers is relatively small.³

Information, Systems, Processes, and Networks: Facilitating *Informed and Considered Career Decisions*



Career information is part of a nexus of products, services, and processes that facilitate *informed and considered career decisions*. As depicted in the graphic to the left, career information extends outward in a direction of increased complexity and value. The outer circles of increased complexity act upon career information in extending, organizing, relating, integrating, and applying it to myriad human situations. The outermost circle provides a feedback loop that informs, improves, and extends the reach and effectiveness of career information, processes, and services.

³ The principal federal investment in career information and services is through the Carl D. Perkins Vocational and Technical Education Act of 1998 Reauthorization (P.L. 105-332). The total annual outlay is less than ten million dollars. This money serves 142 million workers and 60 million students in K-16 and represents an annual investment of about 5 cents per person.



Career information

Career information is the *intelligence* that guides workers (and the professionals who advise them) in the analytical process of examining, comprehending, and making decisions about the world of work. Career information comprises occupational information, industry information, education and training information, financial aid information, and career development process information. Career information is an essential component of career information systems, career guidance, and career education.

It is important to distinguish between career information and *data* such as labor market information, occupational data, and economic data. Career information developers convert these data into products understandable by and developmentally appropriate for intended audiences (Gillie, et al., 2002). Career information renders labor market information, occupational data, and economic data understandable and *meaningful* in the context of individual career development.

Career information makes possible systems that support career development and processes such as career guidance and career education. Career information is absolutely the one tool upon which nearly every step in the process of making *informed and considered career decisions* depends.

Career Information Systems

Comprehensive career information systems, termed career information delivery systems (Ettinger, 1996; Sampson, et al., 1998, 1999), *integrate* information components with assessments, searching features, and other components.

Career Information Delivery Systems (CIDS) are comprehensive, integrated information resources that enable career development. By drawing data from many sources, and through articulating these data in understandable language, CIDS enable people to access many dimensions of the world of work. CIDS provide information about occupations, the workforce, education and training, and related topics. CIDS provide assessments and search features that enable users to relate their characteristics and preferences to occupations and to education and training options (Gillie, 2002).

Career information delivery systems add value to career information by relating and meaningfully integrating components in order to provide end users with personally tailored information. For example, some systems enable users to identify their strongest work skills in order to find occupations that demand these skills. In this way, a user can find work that allows the transfer of accumulated skills and expertise. Many systems provide assessments of work-related interests that enable users to explore occupations that match their particular patterns of interests. Career information delivery systems typically relate occupational information to education



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and training information; users can easily determine the preparation requirements for an occupation and can find education and training providers.

Career Information Processes

Career information processes include career counseling, career guidance, career consulting, and career education. Increasingly, there are sophisticated resources that enable individuals to make *informed and considered career decisions* through career development processes delivered via the World Wide Web (Harris-Bowlsbey, Dikel, and Sampson, 1998).

Particularly relevant to this discussion:

1. The *value added* to career information through the many ways in which information is delivered, contextualized, and made meaningful by counselors, teachers, and others, and
2. The degree to which individuals *grow and develop*, internalize career development processes, and become life-long career self-managers (and sometimes teachers of others).

Career interventions mediated by counselors have substantially stronger effects (Oliver and Spokane, 1983) than unmediated career interventions. Whiston, Sexton, and Lasoff (1998) and Whiston, Brecheisen, and Stephens (2003) offer strong support for career interventions that are delivered by counselors. However, unmediated career information and services can extend to vast audiences and can provide a service to people who don't have access to the services of a career professional.

Several studies have found that career classes, workshops, and structured groups are useful interventions (Spokane and Oliver, 1983; Whiston, et al., 2003; Whiston, Sexton, & Lasoff, 1998; Peterson, Long, & Billups, 1999, 2003; Reed, et al., (2000) that produce a variety of documented outcomes.⁴

Ogle (2001) found that lower student-counselor ratios resulted in increased college-going rates for high school graduates, an effect that persists when taking into account socio-economic and demographic differences.

Increasing the amount of time that students spend talking with counselors and teachers about students' plans is associated with increased achievement in mathematics, science, and reading (Kaufman, Bradby, and Teitelbaum, 2000).

⁴ Outcomes studied include factors related to career decision-making such as appropriateness of choice, certainty/decidedness, and decision-making skills and factors related to effective role functioning such as attitude, career maturity, and self concept.



Career Information Networks

Career information networks derive from government, business, and nonprofit and professional organizations. Government career information networks include America's Career Resource Network (Department of Education) and the Occupational Information Network (Department of Labor). Many states have occupational information networks that were organized through the National Occupational Information Coordinating Committee in the eighties and nineties.

In addition to the structures of state and federal government, career information networks form around specific career information systems or products such as Choices (Bridges), the Coordinated Occupational Information Network (Coin, Inc.), SIGI Plus (Education Testing Service), the Career Information System (University of Oregon), and ACT Discover (ACT). With the common interest of improving career information products and services, these networks provide professional oversight and bring knowledge of end users' experiences with their respective products and services.

Professional organizations that embrace career information and career development include the National Career Development Association, the Association of Computer-based Systems for Career Information, the Career Education Association, and the American School Counselor Association.

Functioning independently, but often in concert, the career information networks strengthen career information and career development through professional development and the establishment of professional and ethical standards, through audience analyses and needs assessments, through guidance for professionals in what constitutes developmentally appropriate career development, and through research sponsorship and dissemination. In sum, the networks create a professional culture around career information and career development. It is in the context of this culture that the value of career information is magnified exponentially.

Often, government investments in career interventions are viewed as costs to be justified by measurable macroeconomic returns: increased employment, improved educational attainment or achievement, gains in income, etc. Herr (2002) points out that career development professionals are often viewed as consumers of such investments, when, in fact, they are also producers. Career development professionals take career information and embed it into career information systems, and into career information processes such as career education, career guidance, and career counseling services. Career networks add further value through improving practice. Any cost/benefit analysis of career information and services must consider the value added to public and private



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investments by the array of career development professionals who create information systems, processes, and networks that facilitate *informed and considered career decisions*.

Measurement Issues

Career information is embedded in systems, processes, and networks. As the complexity of its context grows, the value and effect of career information also grows. The amount of return on investment is very difficult to measure. How much value accrues to a ten-dollar wrench in the hands of an experienced mechanic? In the hands of an experienced mechanic at a top-notch repair shop? In the hands of an experienced mechanic at a top-notch repair shop that is part of an international network of technical support? Do you count the value of every car the mechanic repairs? The engine damage prevented? The value of jobs kept because of reliable transportation?

As with most social phenomena, it is neither possible to grasp all of the inputs of the career development process nor all of the outputs. It may not be possible to generalize returns from one audience to another. The number and intensity of interventions vary as do the professionals who apply the interventions. Although there is considerable outcome research to review, studies often focus narrowly on specific audiences and specific outcomes. Much research is concentrated on high school and college students. Even so, a rich tapestry of professional research reveals that career development processes produce intended outcomes in direct relation to the quality, number, and frequency of interventions. These outcomes contribute to *informed and considered career decisions*.

The following sections shed light on the educational, social, and economic value of *informed and considered career decisions*. Although it may not be possible to measure value with precision, it is possible to assert that value is of significant dimension.

Findings: The Educational Value of *Informed and Considered Career Decisions*

- Improved educational achievement

The U.S. Department of Education published studies of comprehensive guidance programs in Missouri and Utah (Maddy-Bernstein, 2000). These studies provide strong evidence of the effectiveness of secondary school career development programs. Students had higher test scores on the ACT exam, enrolled in significantly more Advanced Placement classes, and were more likely to enroll in Utah's early graduation scholarship.

Blustein (2002) notes that researchers and policy analysts are linking educational development and career development (Gysbers and Henderson, 1994; Marshall and Tucker, 1992; Resnick and Wirt, 1996). There is an emergent understanding that students who have an awareness of the career relatedness of education are more likely to engage and achieve in school. Blustein cites two meta-analyses (Baker and Taylor, 1998; Evans and Burck, 1992)



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and three specific studies that document academic gains from career interventions. Another study of a systematic guidance program (Lapan, Gyspers, and Petroski, 2001) found that seventh graders had improved attitudes toward education and better grades than students who did not take part in the program.

Dykeman et al. (2003) posit that career interventions lead to increased academic efficacy and motivation, two variables that are known to be related to improved academic achievement. In this study, “academic planning counseling” was found to have a positive influence upon mathematics achievement. The authors speculate that mathematics is particularly susceptible to influence, because counselors can help students understand how mathematics relates to their lives and future plans.

- Improved preparation and participation in postsecondary education

Several factors influence postsecondary participation:

- preparing academically through a rigorous program of advanced coursework,
- having intentions for higher levels of education,
- having expectations that one can achieve at higher levels of education,
- participating in a career planning process that articulates goals, steps, and benchmarks,
- receiving supportive guidance,
- having postsecondary information about institutions, majors, financial aid, the college applications process, and support services available,
- getting good grades, and
- being satisfied with the school experience.

Many career interventions address the factors listed above.

The National [United Kingdom] Institute for Careers Education Counseling (1999) reports various studies that indicated positive effects of career education on student intentions for and participation in higher education.

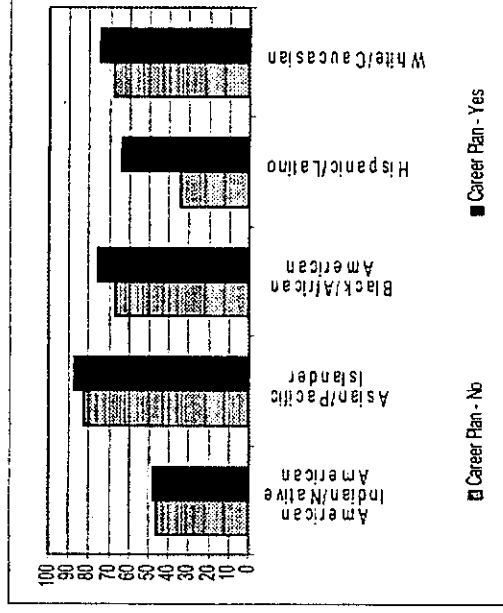
Hughes et. al (2001) found that School-to-Work participants were well prepared for college and the world of work and just as likely to attend college as comparable students.

The Indiana Career and Postsecondary Advancement Center (2002) found that having a career plan by the beginning of the high school junior year is associated with better grades, participation in more academically rigorous curricula, and a greater likelihood of expecting to complete four or more years of postsecondary education. Latino students who have completed career plans are twice as likely to expect to complete four or more years of college as Latino students without career plans. For all groups of students, having a career plan is associated with higher levels of educational expectations. See graph on next page.



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Career Plans and Expectations of Four or More Years of Postsecondary Education by Race/Ethnicity



In "Careers Work and School Effectiveness," Killeen, Sammons, and Watts (1999) conclude that a vast body of evidence shows that career education increases student decidedness about educational options.

Utah students in schools that have highly implemented comprehensive guidance programs choose to take more advanced courses, and female students tend to take more advanced mathematics and science courses. (Maddy-Bernstein, 2000). Advanced academic coursework is highly correlated with postsecondary participation and success. Missouri students reported similar benefits of highly implemented comprehensive guidance programs and reported better grades, higher satisfaction with school, and having received more information about postsecondary options (Maddy-Bernstein, 2000).

Indiana's investment in educational and career planning information⁵ over a period of twelve years contributed to a 61 percent increase in student movement from high school to college, an improvement in the state's national ranking on the high-school-to-college continuation rate from 40th to 17th (Jones, 2003).

A study of tenth-grade students who took a career class based on Crites Career Decision-Making Model showed that participants had fewer career decision-making difficulties and increased their sense of personal direction (Savickas, 1990).

Workers with higher educational attainment are unemployed less and earn more than workers with lower educational attainment (Decker, Rice, and Moore, 1997; Mortenson, 2003).

⁵ This state-funded program used direct-mailed newsletters, school-delivered pamphlets and booklets, Internet-delivered publications, and telephone-delivered services to over 300,000 student households annually and approximately one thousand public and private middle and high schools. The change occurred between 1986 and 1998.